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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,822

07/28/2006

John Sharp

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23280 7590 09/30/2009
Davidson, Davidson & Kappel, LLC
485 7th Avenue
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EXAMINER

WONGWIAN, PHUTTHIWAT

ART UNIT

PAPER NUMBER

3741

MAIL DATE

DELIVERY MODE

09/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,822	Applicant(s) SHARP ET AL.	
	Examiner PHUTTHIWAT WONGWIAN	Art Unit 3741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/28/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is responsive to the preliminary amendment filed on 07/28/2006. Claims 1-12 have been canceled, claims 13-26 have been added and thus claims 13-26 are currently pending in this application.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 102004004945, filed on 01/31/2004.

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 19-22, "each rotor" (only one is shown), claim 23, "each generator has multiple generator stages", claim 25, "each generator is positioned downstream from a low pressure turbine of the gas turbine", claim 26, "the at least one generator includes a first generator and a second generator" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The abstract of the disclosure is objected to because the term “the or each” in lines 3 and 5 of the abstract should be changed to “each”. Correction is required. See MPEP § 608.01(b).
6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 13-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. As to claims 13, 16-26, the limitation “the or each” should be changed to “the at least one”.

10. As to claim 24, the limitation “the angle of incidence of same” is unclear and does not make grammatical sense.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 13-23 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hines (US Patent No. 5,376,827).

13. As to claim 13, Hines discloses a gas turbine comprising: at least one compressor 18, 20 (fig. 1); at least one combustion chamber 22 (fig. 1); at least one turbine 24, 26 (fig. 1); and at least one generator 16 (fig. 1) for generating electrical energy, the at least one generator including at least one rotor 42 (fig. 1) and at least one

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corresponding stator 34 (fig. 1), the or each rotor being a free-running generator turbine 16 (fig. 1) which, driven by a gas flow 12 (fig. 1), rotates relative to its corresponding stator and generates electrical energy from the kinetic energy of the gas flow.

14. As to claims 14-22, Hines discloses the at least one rotor 42 (fig. 1) includes a plurality of rotor (fig. 1), wherein the at least one corresponding stator includes a plurality of stators 32, 34 (fig. 1), each of the plurality of rotors rotating relative to a corresponding one of the plurality of stators 32, 34 (fig. 1), a fan module 18 (fig. 1) having at least one fan 18 (fig. 1), the at least one generator 16 (fig. 1) being positioned downstream from each fan 18 (fig. 1) such that the free-running generator turbine is driven by a gas flow of the fan (fig. 1), wherein each generator is integrated into a generator module 16 (fig. 1), the generator module 16 (fig. 1) being detachably connected to the fan module 18 (fig. 1), wherein each generator generates electrical (fig. 1) energy from a bypass gas flow of the fan module, wherein each rotor has multiple rotating blades 42 (fig. 1), each blade being assigned a corresponding pole piece 48 (fig. 1), wherein the pole pieces are assigned to radially outside ends (fig. 1) of the rotating blades of the or each rotor, each corresponding stator 32, 34 (fig. 1) radially enclosing its rotor, wherein the pole pieces are assigned to radially inside ends of the rotating blades of the (fig. 1) or each rotor, each rotor radially enclosing its (fig. 1) corresponding stator and wherein the each rotor has a smaller number of blades 42 (fig. 1) than the or each fan 18 (fig. 1) of the fan module.

15. As to claims 23 and 25-26, Hines discloses each generator 16, 56 (fig. 1) has multiple generator stages 36, 42 (fig. 1), each generator stage being formed by one of

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the plurality of rotors 36, 42 (fig. 1) a corresponding one of the plurality of stators 32, 34 (fig. 1), wherein the at least one generator 16 (fig. 1) includes a first generator 16 (fig. 1) and a second generator 56 (fig. 1), the first generator 16 (fig. 1) being positioned downstream from the fan module 18 (fig. 1) and the second generator 56 (fig. 1) being positioned downstream from a low pressure turbine 26 (fig. 1), and wherein kinetic energy of the gas flow exiting the fan module and kinetic energy of the gas flow exiting the low pressure turbine are converted into electrical energy (fig. 1).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hines in view of Lair (Pub. No. 2005/0039437).

18. As to claim 24, Hines discloses the essential features of the claimed invention except *the blades of each rotor are adjustable for adjusting the angle of incidence*.

However, Lair teaches the blades 54 (fig. 1) of each rotor 54 (fig. 1) are adjustable 60 (fig. 1) for adjusting the angle of incidence.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Hines's invention to include *the blades of each rotor are adjustable for adjusting the angle of incidence*, as suggested and taught by Lair, for

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the purpose of decreasing flow area in side the nozzle for noise attenuation (abstract, lines 7-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUTTHIWAT WONGWIAN whose telephone number is 571-270-5426. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL A. CUFF can be reached on 571-272-6778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. W./

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/Michael Cuff/

Supervisory Patent Examiner, Art Unit 3741